Algebra

Ramp Activity

We will be testing how the steepness of a ramp affects the speed of a car.

Roles in your group:

1. Measurer
2. Timer
3. Recorder
4. Quality Control and “Car catcher”

A. Set up the demonstration like the class model. Record the following for each trial.

*Height of Ramp*

*Distance of Ramp from Books*

*Time it took car to go 3 feet*

Trials:

1. Height 1 inch

2. Height 2 inches

3. Height 3 inches

4. Height 5 inches

5. Height 7 inches

6. Make ramp as steep as possible

B. Questions:

1. How can you figure out the steepness of each ramp? Compute for each ramp.
2. How did the steepness of the ramp affect the speed?
3. What would have happened to the speed if we used a shorter ramp but still used the same heights?

Homework:

C. Investigate one of the following. Write a few sentences. Be prepared to hand it in.

1. In the mountains, why are there signs stating the grade? Why do trucks have to pay particular attention to these signs and posted speed limits?
2. Why do we have certain building codes when it comes to ramps and stairs? Try to find the codes online.
3. Why do houses in America have slanted roofs? (When I lived in Senegal, the roofs were flat.) Why are there certain limits for building roofs? Try to find the building code online.